NON-PUBLIC?: N
ACCESSION #: 9507310228
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Joseph M. Farley Nuclear Plant-Unit 2 PAGE: 1 OF 3

DOCKET NUMBER: 05000364

TITLE: Reactor Trip Due To Turbine Trip Caused by Overfilling of
the 2C Steam Generator
EVENT DATE: 06/25/95 LER #: 95-007-00 REPORT DATE: 07/25/95

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 63

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: R.D. Hill, General Manager - TELEPHONE: (334) 899-5156
Nuclear Plant

COMPONENT FAILURE DESCRIPTION:
CAUSE: X SYSTEM: SJ COMPONENT: SC MANUFACTURER: W120
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

At 1640 on June 25, 1995 with the Unit 2 reactor in mode 1 operating at approximately 63 percent power, the reactor tripped due to a turbine trip caused by 2C steam generator water level reaching the Hi-Hi setpoint of 79 percent. This occurred during the evolution of transferring feedwater flow from the 2A operating steam generator feed pump (SGFP)SJ! to the 2B SGFP. As the speed of the operating 2A SGFP was lowered, the speed of the 2B SGFP automatically increased providing the necessary feedwater flow needed to maintain normal steam generator (SG) levels. However, as the 2A SGFP discharge flow approached minimum flow, the 2A SGFP miniflow valve opened per design. The operating crew failed to anticipate the opening of the miniflow valve which resulted in a decrease of feedwater flow to the SGs. In addition, the 2B SGFP failed to respond as expected. In order to raise SG levels the control room crew manually increased the speed of the 2A SGFP and began taking manual control of the main

feedwater regulation valves (MFRVs). 2A and 2B MFRVs were manually adjusted; however, prior to placing the 2C MFRV in manual, the 2C SG level reached the Hi-Hi setpoint of 79 percent. This resulted in an automatic turbine trip which initiated an automatic reactor trip. This event was caused by cognitive personnel error resulting in the overfilling of 2C SG to the Hi-Hi setpoint. The individuals involved have been coached concerning this incident. The unit was returned to power operation 0525 on June 29, 1995.

END OF ABSTRACT

Plant and System Identification

Westinghouse -- Pressurized Water Reactor
Energy Industry Identification System codes are identified in the text as XX!.

Description of Event

At 1640 on June 25, 1995 with the Unit 2 reactor in mode 1 operating at approximately 63 percent power, the reactor tripped due to a turbine trip caused by 2C steam generator (SG) water level reaching the Hi-Hi setpoint of 79 percent. This occurred during the evolution of transferring feedwater flow from the operating 2A steam generator feed pump (SGFP)SJ! to the 2B SGFP. This process involved manually lowering the speed of the operating 2A SGFP using the main control board speed controller. As the speed of the operating 2A SGFP was lowered, the speed of the 2B SGFP automatically increased providing the necessary feedwater flow required to maintain normal (SG) levels. However, as the 2A SGFP discharge flow approached minimum flow, the 2A SGFP miniflow valve opened per design. The operating crew failed to anticipate the opening of the miniflow valve which resulted in a decrease of feedwater flow to the SGs. As the SG levels decreased, the three feedwater regulation valves (MFRVs) responded per design opening further in an attempt to restore its respective SG level to normal. However, the 2B SGFP speed control circuit failed to respond as expected and did not provide adequate feedwater flow. In order to raise SG levels, the control room crew manually raised the speed of the 2A SGFP. As the 2A SGFP discharge flow increased, the 2A SGFP miniflow valve closed per design further increasing flow to the SGs. The SG levels responded to the increase in feedwater flow and began to increase rapidly. As the SG levels continued to rise, the operating crew began taking manual control of the MFRVs. 2A and 2B MFRVs were manually adjusted in order to lower feedwater flow to the respective SGs. However, prior to placing the 2C MFRV in manual, the 2C SG level reached

the Hi-Hi setpoint of 79 percent. This resulted in an automatic turbine trip which initiated an automatic reactor trip.

Cause of Event

This event was due to cognitive personnel error in that control room personnel overcompensated feedwater flow in response to a feedwater transient. The overcompensation resulted in the overfilling of 2C steam generator to the Hi-Hi setpoint of 79 percent.

Safety Assessment

All safety systems operated as designed.

This event would not have been more severe if it had occurred under different operating conditions.

Corrective Action

The individuals involved have been coached concerning this incident.

Procedures for removing a feedpump from service have been revised to include considerations of miniflow valve operation.

This incident will be included in 1995 License Operator Retraining.

Corrective action will be completed by September 16, 1995.

Additional Information

The 2B SGFP speed control circuit was found outside of calibration and two circuit cards were replaced. These circuit cards were most probably the cause of the 2B SGFP failing to properly respond.

LER 93-004 (Unit 2) was submitted in response to a reactor trip at 5 percent reactor power due to a low-low water level in 2C steam generator following a turbine trip and feedwater isolation. The turbine trip and feedwater isolation were in response to the 2B steam generator level reaching the Hi-Hi level setpoint. The high steam generator level was reached during attempts to restore steam generator water levels following removal of the main generator from the grid to perform main turbine overspeed trip testing.

A four hour non-emergency notification was made pursuant to 10 CFR 50.72.

The unit returned to power operation at 0525 on June 29, 1995.

ATTACHMENT TO 9507310228 PAGE 1 OF 1

Southern Nuclear Operating Company
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Dave Morey
Vice President Southern Nuclear Operating Company
Farley Project the southern electric system

July 25, 1995

Docket No. 50-364 10 CFR 50.73

U. S. Nuclear Regulatory Commission
ATTN.: Document Control Desk
Washington, D.C. 20555

Joseph M. Farley Nuclear Plant - Unit 2
Licensee Event Report 95-007-00
Reactor Trip Due to Turbine Trip Caused by
Overfilling of the 2C Steam Generator

Ladies and Gentlemen:

Joseph M. Farley Nuclear Plant Licensee Event Report 95-007-00 is being submitted in accordance with 10 CFR 50.73. If you have any questions, please advise.

Respectfully submitted,

Dave Morey

REM/maf: RXTRP.DOC

Attachment

cc: Mr. S. D. Ebneter
Mr. B. L. Siegel
Mr. T. M. Ross

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